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## EXPERIMENTAL DETERMINATIONS

OF THE

# ECONOMIC VALUES OF BRITISH AND AMERICAN COALS.

BY PROFESSOR W. R. JOHNSON.

*Extract from the Proceedings of the second meeting of the American Association for the Advancement of Science, held at Cambridge, August, 1849.*

PROFESSOR JOHNSON alluded to the former labors of Lavoisier, Rumford, Dulong, Parkes, Manby, Schaufhaut, Fyfe, and others, in Europe, and to those of Bull, Dana, Francis, Hayes, and Stevens, in this country, as instances of the talent and industry which had been applied to the determination of the law of heating power in combustible bodies.

He briefly recapitulated the circumstances which led to the undertaking of a series of researches on American coals, in 1842, pointed out the necessities of the naval service and the other great interests of the country, which had induced the authorities at Washington to enter into this most important research, and mentioned the extension then given to the inquiry.

When the report on American coals reached England, in 1845, a copy was sent by Hon. Joseph Hume, M. P., to the Lords of the Admiralty, with a suggestion that a similar examination should be made of the coals of England, Scotland, and Ireland. Their lordships promptly responded to this wish, and called on Sir Henry de la Beche and Dr. Lyon Playfair, to undertake the investigation. After a labor of two years and a half, employed in testing and analyzing the coals, their report was rendered in January, 1848.

By means of this report on British coals, and of his own on American coals, Professor Johnson was enabled to institute a series of comparisons, not only between the several classes, but, in some cases, directly between individual samples of the coals of the two countries, having a similar constitution, and apparently the same physical character. The number of samples of fuel tested at Washington in 1843, was *forty-five*; and the time devoted to the whole investigation, one year and eight months; the number tried in London was *thirty-one*. Of the American trials, *eight* were upon anthracites, *ten* upon free-burning, semi-bituminous coals of Pennsylvania and Maryland; *ten*, highly bituminous coals of Eastern Virginia; *six*, similar bituminous coals of England, Scotland, and Nova Scotia; *two* Western bituminous coals; *one* was on "natural coke" of Virginia; *two* on artificial cokes; *two* on mixtures of anthracite and bituminous coal, and *one* on pine wood.

Of the British series, *two* were anthracites, *ten*\* were free-burning coals

\* The Welsh coals compared are, Graigola, Oldcastle fiery vein, Ward's fiery vein, Einea, Llangenneck, Duffryn, Mynydd, Newyd, Resolven, Bedwas, and Ebbw Vale.

of Wales, *eight*, highly bituminous coals of Wales, (resembling those of Eastern Virginia,) *two* English, and *five* Scotch coals of high bituminousness; *three* were patent fuels, and *one* was wood—species not stated.

The evaporating vessels used in the American and in the British researches were different in construction. Professor Johnson had used a cylindrical boiler, thirty feet in length, three and a half feet in diameter, having two interior return flues, each one foot in diameter, and side flues exterior to the boiler, by means of which the gases went completely round the boiler, after returning through the interior flues, making the entire length of circuit for the products of combustion, from the centre of the grate to their entrance into the chimney, 121 feet. The grate surface was 16.25 square feet, the area of heat-absorbing surface was 377.5 square feet; so that the ratio of grate surface to absorbing surface was as 1 to 23.2. The chimney was 63 feet high, with a cross section of 324 square inches. The fire was built beneath the boiler.

The British commissioners used a boiler of the Cornish form, twelve feet long and four feet external diameter, having an interior flue two feet in diameter, within which the fire was built. The products of combustion having traversed this flue, returned in a divided current through side flues exterior to the boiler, and finally, in a united current, passed under the boiler to the chimney, making a circuit of 36 feet in length. The heat-absorbing surface was 197.6 square feet; the area of grate, five square feet; and the ratio of grate surface to absorbing surface, 1 to 39.5. The chimney was 35.5 feet high, and had a cross section of 182.25 square inches. The amount of coal burned during the whole series of 144 trials at Washington, was 62.5 tons; that consumed in the 82 trials at London, was 14.33 tons; the average weight of coal burned at one trial, in the former case, being 978 pounds; and in the latter, 391.5 pounds.

The shape of the Cornish boiler gives rise to an inequality of temperature of the water in its various parts. The actual difference between the surface and the bottom water averaged  $70^{\circ}$ , (Brit. Rep., p. 6,) and compelled the experimenters to adopt the expedient of pumping the cooler water from the bottom through a series of pipes into the upper part of the boiler, whenever it became necessary to get the mean temperature of water in the boiler.

In both the American and the British trials, the economic weight of all the samples tested was determined by measuring them, not in bushels, but in cubic feet, and the relation of the economic weight to the specific gravity of the coal, as found in the mine, has been ascertained for each sample. This determination had enabled Professor Johnson to give in his tables the cubic space required for the stowage of a gross ton of each kind of coal. He had ascertained this for the coals as received, and in their ordinary marketable condition as to the size of the lumps. The British commissioners, on the contrary, produced an artificial economic value, by breaking every kind of coal, before weighing, into fragments so small that no piece should weigh more than one pound. This treatment caused nearly every sample to exhibit a higher economic weight than it would have done had it been weighed in the marketable state—that state in which it is usually put on board of steam vessels.

Having determined the weight of a cubic foot of coal by direct experiment, and also the weight of water which a pound of each coal would convert into steam at  $212^{\circ}$ , Professor Johnson had computed and given in his report to the Navy Department, (Senate Document 386, twenty-eighth Congress, first session,) the weight of water which one cubic foot of each

coal would convert into steam from  $212^{\circ}$ , and had made this the basis of his fifth table of ranks, (Report on American Coals, p. 594.)

By breaking up their coals to the degree of fineness above mentioned, and thereby giving them an artificial economic weight, the British commissioners have obtained, in nearly every case, greater quantities of steam per cubic foot of coal than were given by analogous coals in the American trials. Thus, the free-burning coals of Wales, which are analogous to those of Maryland and Pennsylvania, have an average specific gravity of 1.31, while their American congeners have 1.357; or the latter are 3.5 per cent. heavier in the mine than the former; yet the twelve American free-burning coals, weighed in the marketable state, exhibited 52.84 pounds per cubic foot, and the ten Welsh free-burning coals, 54.45 pounds. Adding to this latter weight 3.5 per cent. for the greater specific gravity of the American coals, we have 56.35 pounds, as the weight of one cubic foot of them, if prepared by breaking up, in the way above described. The above weight of 54.45 pounds of British coals gave an average of 543 pounds of steam; and the 52.84 pounds of American coal gave 510.35 pounds of steam. At this rate, 56.35 pounds of the same coal gave 544.2 of steam, showing the economic values, bulk for bulk, of the two coals in that state to be almost identical.

By comparing about twenty different samples of American with the same number of British coals having *corresponding specific gravities*, it is rendered highly probable that by the treatment to which their coals were subjected by the British commissioners, (that is, by breaking them up into fragments so small that no piece should weigh more than a pound,) any given space is made to receive, on an average, 10.9 per cent. more weight than when the same coals are measured in their marketable state, and without this artificial preparation. As a guide to practice these artificial economic weights must prove fallacious, unless the steamships can be brought to the adoption of the same standard for the size of their coals.

It was remarked that though the British commissioners determined the quantity of moisture in the coals upon which they experimented, they made no account of the results in their computation of heating power. This Professor Johnson regarded as objectionable, especially where the moisture amounted to so great a quantity as that given in some of the analyses. Thus, of the two Dalkeith Scotch coals, that which came from the "Jewel seam" contained 9.36 per cent. of moisture, and evaporated only 7.08 pounds of water from the boiler per pound of coal; while that from the "Coronation seam" gave but 5.88 per cent. of moisture, and evaporated 7.71 pounds of water from the boiler. In both cases this hygrometric water replaced so much coal, when weighed out to the fireman, and for that reason was to be deducted from the weight, in order to get the actual weight of coal burned. Besides this, as so much water was thrown upon the grate to be evaporated, instead of being put into the boiler for that purpose, for this reason, also, it must be regarded as having been deducted from the *useful effect* of the fuel. Consequently, the weight of coal must in each case be reduced by the per centage of its moisture, and the weight of water considered as delivered to the boiler, must be increased by a like per centage of the weight of coal burned, to get the relative values of the two fuels in like states of dryness. If we deduct the weight of ash in each of these two coals from 100, we get the combustible, including moisture, = 95.63 and 96.90; and computing the steam for one pound of this combustible matter, we get 7.40 and 7.95, of which the difference is 0.55 pound, or 7.4 per cent of the smaller number. If again we deduct the per centage of moisture in each coal, from that of the combustible, we obtain 86.27 and

91.02 as the true relative quantities of dry combustible in each variety, and adding to the weight of water evaporated from the boiler by each pound of the moist combustible, the weight of moisture which it evaporated from the body of the coal itself, we obtain 7.17 and 7.76 as the respective amounts evaporated per pound of moist coal; and as these quantities were evaporated by .86 and .91 of a pound of *dry combustible matter*, we obtain as the evaporative efficiency of one pound of such combustible, 8.37 and 8.53, or the difference is reduced to twenty-two hundredths of a pound of water to each pound of combustible, which is 2.6 per cent only of the smaller number. This difference may be accounted for by the difference in the composition of the dry combustible of the two varieties of coal. In the Jewel seam, the fixed carbon was to the volatile combustible as 1.11 to 1, while in the Coronation seam it was as 1.24 to 1. This greater evaporative efficiency among bituminous coals, in proportion as the ratio of their fixed to their volatile combustible material is higher, is a general truth, established as well by the British as by the American experiments. It was fully brought out in the report on American coals. The comparison of any number of the bituminous coals differing essentially from each other in the amount of their volatile constituents will, whether drawn from the American or the British tables, be found to confirm this general conclusion.

Thus the ratios of fixed to volatile combustible matter, and the evaporative power of the whole of the combustible matter, will be seen by the following comparisons, of which the first is from the American, and the second from the British trials.

#### *American Experiments.*

	Ratio of fixed to volatile matter.	Evaporative power.
1. Scotch Coal.....	1.257	7.72
2. Newcastle Coal.....	1.600	9.18
3. Virginia Midlothian, (new shaft,).....	1.680	9.75
4. Cumberland, (Atkinson & Templeman,) 4.940		11.62

#### *British Experiments.*

1. Scotch, (Dalkeith, Jewel seam),.....	1.112	7.42
2. Broom Hill, (not far from Newcastle),..	1.780	8.96
3. Cwmfrwd Rock Vein, (Welch),.....	2.08	9.07
4. Ebbw Vale, (Welch),.....	3.59	10.53

The same point might be illustrated by numerous other examples from both reports.

Professor Johnson noticed with approbation the determination by the British commissioners of the relative cohesive powers of the several coals, or their power to bear transportation; also their experiments and computations to ascertain the quantity of ammonia, and of its sulphate, which would be yielded by the destructive distillation of each coal. He recurred to the fact that the American experiments had remained to the present time incomplete, for want of the appropriations necessary for carrying them on, only a part of the coals having been submitted to ultimate analysis, and to a determination of their sulphur, while the British experimenters had been enabled to execute complete series of ultimate analyses, ascertain the proportion of sulphur, and give the proportions of carbon, hydrogen, nitrogen, oxygen, sulphur, moisture, and ash, for every sample of coal. He mentioned, as highly interesting to steam to navigation, the trials they have made of several patent fuels, by which they proved that some of those fuels

contain a much greater evaporative power under a given bulk than any of the coals in their ordinary merchantable state. This was illustrated by a comparison between Warlich's patent fuel, of which

	Pounds of steam.
One cubic foot gave.....	715.35
And Ward's Fiery Vein Coal.....	608.78 (a maximum.)
And Dalkeith's Jewel seam.....	352.58 (a minimum.)

He also noticed that the co-efficient of Regnault had been adopted by the British commissioners for computing the latent heat of the vapor of water, and stated the tendency of this co-efficient to bring out a higher calculated calorific efficiency than that which would be given by the co-efficient directly determined by his own researches.

He observed that they had employed a part of the coal burned in giving temperature to the boiler, its contents, and the brickwork of its setting, and a part in generating steam, instead of heating up the boiler and the furnace with wood, and then using the whole heating power of the coal to generate steam; thus complicating considerably the calculations. In computing the effect of that part of the fuel which is used in heating up the water in the boiler, they have not included that expended on the boiler itself, which, from its considerable weight and high specific heat, might reasonably require an allowance. As the experiments on American coals were commenced with furnace, boiler, and contents, all at normal temperature, such an allowance was not required.

Though the British commissioners have made experiments on the gases of the chimney, they have not used them to ascertain how much of the whole heat developed was expended on those gases. They came to a conclusion in regard to the oxygen remaining unconsumed in the gases, identical with that previously reached by the American researches, viz: that in ordinary steam-boiler furnaces of good construction, the oxygen which has not been consumed is from one-fourth to one-half of the whole quantity originally in the air.

The temperature compared with the observed bulk and weight of water in a boiler has been re-examined by Messrs. de la Beche and Playfair, and as far as they go, their results confirm essentially those of Professor Johnson. These analogous results are found at page 13 of the American Report, and page 53 of the British Report. From the different requirement of their experiments, the British commissioners extended their temperature only from 70° to 212°, while the American reached from 66° to 230°.

The expansion of water in the supply tank was examined by Professor Johnson between 58 and 90 degrees; by the British commissioners between 40 and 80 degrees.

The average heating powers computed from their experiments by the British commissioners agree very closely with the averages for corresponding classes of coals given at Washington. Thus, by the

#### *American Experiments.*

Ten anthracites gave steam to 1 of coal.....	9.56
Eleven Pennsylvania and Maryland free-burning coals.....	9.68
One Newcastle coal.....	8.65
Ten Virginia bituminous coals.....	8.48
Four Liverpool and Nova Scotia.....	8.18
Three Scotch and Western.....	7.49
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Mean of 6 averages.....	8.67

*British Experiments.*

Two anthracites gave steam to 1 of coal.....	9.65
Ten Welch free-burning coals.....	9.58
One Broomhill.....	8.75
One Forest of Dean.....	8.52
Eight Welch bituminous.....	8.00
Five Scotch.....	7.64

Mean of 6 averages.....	8.69
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The pine wood used at Washington gave 4.69; the wood of inferior quality, used at London, gave 3.10.

One of the great purposes of researches, such as are now under consideration, is to afford information, not merely with respect to particular samples of coal tested, but on the general laws of calorific efficiency, whereby we may be enabled to establish tests of easy application, in place of the laborious operations involved in the production of steam, on a large scale. It was for this purpose that in the American experiments several ultimate analyses had been performed, the general results of which are found at page 586 of the American Report; and for a like purpose were made all the experiments on burning coals with litharge, (Report, p. 585,) and those on the composition and character of the gases passing to the chimney, (pp. 561-581.) In order to make a strict comparison of the total calorific efficiencies of different fuels, we must know what part of their heating power they respectively expend on the evaporating vessel, and what part on the gaseous products of combustion—it being well ascertained that coals of different constitutions are liable to vary considerably from each other, in the proportion of their effective, or useful, and their ineffective expenditures of heat. By a comparison among six different bituminous coals of the computed heating power of their *carbon* alone, as ascertained by ultimate analysis, with their practical heating power, as applied to both the boiler and the products of combustion, the most exact and striking conformity had been found between their per centage of carbon and their relative calorific efficiencies. The computations, for which the data are found in the American Report, have been published in the Proceedings of the Academy of Natural Sciences of Philadelphia, (Vol. II, p. 204.) As the British commissioners have given ultimate analyses of all their coals, it is practicable to compare the carbon constituent of every sample with its heating power as expended on the boiler, but not on the gases of combustion. The proofs of this law, furnished by the American and British experiments, respectively, are as follows:

## American Experiments.

Name of coal.	Theoretical evaporative power of the carbon alone by Dulong's c <sup>r</sup> efficient = 12.906; and latent heat = 1030 degrees. (A.)	PRACTICAL EFFECTS.		Total efficiency of the combustible matter, by experiment. (B.)	Difference between the theoretical & experimental efficiency, from columns A and B.
		Water from 212 deg. evaporated from the boiler by one of dry combustible matter.	Evap'tive power expended on the products of combustion, in steam, from 212 degrees.		
Cambria County, Pa.	11.522	10.238	1.312	11.550	—.028
Midlothian, Va. ....	11.731	10.191	1.269	11.460	+.271
Newcastle, Eng. ....	10.545	9.178	1.720	10.898	—.353
Clover Hill, Va. ....	10.445	8.588	1.949	10.537	—.082
Scotch. ....	10.393	8.868	1.338	10.206	+.187
Cannelton, Ind. ....	9.565	7.734	1.823	9.557	+.008
Average. ....	10.700	9.133	1.568	10.701	+.0005

## British Experiments.

Coals arranged in the order of their percentage of carbon, beginning with those having the least.	Carbon per cent by analysis for the set.	Steam to 1 of coal from 212 deg. by experiment.	Steam to 1 of coal from 212 deg. by calculation from per centage of carbon.	Difference between experiment and calculation.
		Mean.	Mean.	
First set, four samples. ....	74.15	7.78	8.03	—.25
Second set, four samples ..	76.63	8.35	8.27	+.08
Third set, four samples. ....	79.67	8.65	8.60	+.05
Fourth set, five samples. ....	81.06	8.89	8.75	+.14
Fifth set, four samples. ....	85.68	9.17	9.25	—.80
Sixth set, four samples. ....	88.12	9.50	9.51	—.01
Seventh set, four samples... ....	89.99	9.75	9.75	(Standard of comparison)

All these samples from the British Report were arranged in strict conformity with their carbon constituent, and then merely divided into groups or sets, as stated in the table.

Comparisons had also been made of the practical efficiency of the coals as given by experiments under the steam boiler, with their calculated heating powers as determined both by the Method of Berthier—that of burning them in contact with litharge—and by computing from ultimate analysis the sum of the heating powers of their hydrogen and carbon constituents. Neither of these latter methods gives results so nearly in accordance with practice, as that which has its basis in the carbon constituent alone. Still less does that method which makes heating power depend only on *fixed carbon*. Until some proof to the contrary shall have been elicited by future experiment, we must still continue to regard the total amount of *carbon*, both *fixed* and *volatile*, as the true index of calorific efficiency, whether in bituminous coals or anthracites.

In concluding their report, the British commissioners suggest for consideration, that these experiments may be extended to the coals of other districts than those already embraced, and that for this purpose the needful expenditure be sanctioned for one or two years more. Should this be done, they express the belief that "a most important body of information would be accumulated, alike important to the naval service and to the public at large."

A similar statement had been made five years ago in concluding the report then rendered on American coals. At the time that representation was made, the extent and importance of our American coal fields were little understood or appreciated, and the value of direct and careful determinations of their respective heating powers were far less highly prized than at present. They are now desired and solicited with great eagerness. Professor Johnson pointed out the necessity which still exists for an extensive and thorough research, in order to give the coal fields of the United States, not embraced in the first series of experiments, the same advantages of a close investigation which had been in part afforded to those east of the Alleghany mountains.

He indicated as among those which yet await the practical and chemical tests, the coals of Western Pennsylvania and Virginia, those of Kentucky and Tennessee, of Ohio, Indiana, Illinois, Iowa, Michigan, and Missouri, of North Carolina, Georgia, Alabama, Arkansas, and Texas.

The navigation of the Gulf of Mexico and the Caribbean Sea, that of the Northwestern Lakes in all their extent, and that of the Western Rivers in all their ramifications, is destined to be conducted almost wholly by the aid of steam generated by coal. Metallurgic operations of vast magnitude will continue to be carried on by the aid of fossil fuel, and no other than the most thorough and exact determination of the relative values of the different sorts of coal will suffice as an enlightened guide to those who shall hereafter engage either in arts or in navigation.

Professor Johnson, in conclusion, noticed the fact that the British commissioners had instituted no comparisons between the results of their own labors and those of others, which might possibly account for their omitting all mention of, or allusion to, the American researches, except by prefixing to their report the letter of Mr. Hume. But he expressed the hope, that though this omission is not without precedent among our scientific brethren on the other side of the water, the cultivators of science in America would not regard it as an example for imitation, and that while pursuing with zeal the career of scientific usefulness, they would be as ready to acknowledge the labors of others, whether at home or abroad, as to claim due credit and consideration for their own.

## SECOND APPENDIX.

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Since the foregoing went to press, the following official statements have been procured, by request, and placed in the hands of the Senate committee. It will be seen that they not only fully confirm the positions assumed in the appendix, as to the delays and expenses therein alleged, but superadd thereto an immense mass of reasons, founded on practical knowledge, touching *the dangers of the San Francisco rout to Benicia*, and the frequent wreck of ships, and loss of life and property, in taking it, which cannot fail to be unanswerably conclusive upon that branch of the subject.

*To the Hon. PIERRE SOULE, Senator from Louisiana.*

Two ships entering the bay of "San Francisco," one bound to Benicia, the other to the anchorage off the city of San Francisco, would part company immediately after passing through the straits of San Francisco, now known as the "Golden Gate." The one bound to Benicia would keep the left hand, or northern shore aboard, and pass through Raccoon straits, which separate Angel island from the main land, and thence through San Pablo straits, seven miles, enter the bay of the same name, into which all the waters of the great Sacramento and San Joaquin rivers are discharged through the straits of Karquinez, on the north shore of which strait the corporate city of Benicia is located, distant about 35 miles from the *ocean bar*, or 25 miles from the "Golden Gate." Throughout this entire distance there is a *clear open ship channel, free from any danger, and no where less than one mile wide, with a minimum depth of 30 feet at low water.* The U. S. frigate Savannah has twice gone to Benicia, and beat most of the way. After passing the "Golden Gate," ships bound to the port of San Francisco keep the starboard or right hand shore aboard, and must take care to avoid a *SUNKEN ROCK*, which lays on the southern side of the channel, off the "Presidio," on which the barque Annetta struck and received much damage. Further on, on the same side of the channel, off the northern limits of the city of San Francisco, there is a dangerous sandspit, on which many vessels have struck and remained several days; and one, the fine ship "Tonquin," with a valuable cargo, worth \$200,000, was totally lost last winter. This circumstance gave to it the name of "Tonquin Shoal," which is rapidly encroaching on the channel, here quite narrow, leaving but little room between it and the barren rock of "Alcatraces," or "Bird island," on the north side of the channel. This rock, too, is a *great impediment to safe navigation*, particularly to vessels leaving San Francisco, whether going to sea or Benicia; many vessels have been *brought up by it*. The U. S. sloop of war St. Mary's was carried on it by the tide, and remained on the rocks about 24 hours.

In a direct line between "Bird Island" and the island of "Yerba Buena," abreast of the city of "San Francisco," lays the *dangerous sunken "Blossom Rock,"* on which there is only 4 feet water at low tide. This rock is directly in the passage from "San Francisco Roads" to "Benicia;" and in consequence of the *strong and irregular tides* which *WHIRL around* this rock, as well as about "Bird Island," it is extremely difficult at all times to keep ships clear of them; and, as experience has already proven, no art or skill can always avoid them.\* A fine ship, coming in last winter, was driven on "Bird Island," knocked off her rudder, cut away her masts, and was so much damaged in her bottom as to cause condemnation. Vessels bound from "San Francisco" to "Benicia," in shunning Blossom rock, must look out for "Southampton shoals,"† which extend from the northwest point of "Yerba Buena island," till you pass "Raccoon straits." These shoals are from 7 to 9 miles long, and compress the ship channel on the east side of

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\* *NOTE BY E. C.*—In this respect resembling Hurlgate, above New York.

† *NOTE.*—The U. S. store ship "Southampton," bound from San Francisco to Benicia, in February, 1849, struck on this shoal, and remained aground three days, notwithstanding every effort was made to get her afloat; nor would this have been effected without discharging the greater part of her cargo, had not a heavy norther set in on the night of the 8th, which *drove her off* into deep water, and several vessels ashore at San Francisco.

"Angel island" to a barely beating width. The anchorage off the city of San Francisco is very much exposed to winds from northwest to south, (east about,) which winds prevail from October to March, and sometimes blow with great force so as to cut off all communication between the shore and shipping for several days at a time. The southwest winds, which blow from March to October, frequently in the afternoon, amount to the force of a tempest, so that communication with the shore by merchant ships' boats is interrupted for several hours almost every day; and as 7-10ths of the vessels arrive at the port of San Francisco after meridian, it rarely occurs that a ship is admitted to entry the same day; for before the ship can be secured at her anchorage, and the master get on shore, the custom-house is closed, and he must of necessity wait its opening the next day; and, as is often the case, if a dozen or 20 vessels should arrive the same day, and as many more be clearing, the vessel bound to Benicia would do well if her custom-house entry did not detain her two or three days. Such would certainly be the case of the last vessels arriving on any Saturday in the afternoon. The tide runs with great force in the "San Francisco Roads," and as the anchorage is in **DEEP WATER**, and averaging a mile from the shore, when the *winds* and *tides* are *adverse*, there is a rough sea; and it is only at particular stages of the tide that vessels bound for Benicia can get under way. If a vessel, from *any cause*, does not embrace that auspicious moment, she must wait another 24 hours; and if, in the mean time, a "norther" comes on, such as drove the *well found* ship Barnstable, of Boston, (the only vessel in the cove of "Yerba Buena" at the time on shore, in the winter of 1845-6,) with 3 anchors down; or a "souther," such as wrecked the brig "*Col. Benton*" on "Angel island" last winter—the *ceremony* of calling at San Francisco *may, nay, assuredly would*, cause the loss of much property and many valuable lives.

An inspection of the accompanying charts, on which I have traced with red ink the routes described above, will show that from the "Golden Gate" to the northeast end of "Angel island," via of Raccoon straits, is about seven miles, whilst by the way of San Francisco the distance to the same point is about eighteen miles. But what is of the greatest importance to the shipping interest is, that by the direct and natural route to Benicia, from the sea, through Raccoon straits, you have a free clear passage all the way, thereby *avoiding all risk and dangers, by which the circuitous route, via San Francisco, is so thickly studded*. So insecure is the anchorage off "San Francisco" considered, that insurance cannot be effected either in England or the United States, on *vessels to lay there*. Whilst insurance on any vessel, *to lay the year round at Benicia*, is effected at the usual rates. But were vessels insured for Benicia, compelled by law to enter at San Francisco, I doubt not but that an exception in the policy would be made to the risk of that part of the voyage, or at any rate, additional premium would be required. From what I have stated above, the result of my own observations in the course of nearly two years service in those waters, which I have frequently navigated and traversed, in every class of vessel, from the Ohio 74 down to a barge drawing 18 inches water, I am satisfied, all things considered, that to require a vessel bound to Benicia, to enter at the custom-house at "San Francisco," would, in ninety cases out of one hundred, cause a detention of **THREE DAYS**, often of **FIVE OR SIX**—and in the winter season of *double that time; even if their crews do not run away*, as soon as the ship anchors, which is *frequently the case*.

It has been recently alleged as an objection to Benicia as a port of entry, that by reason of the strong current setting *out* of the straits of "Karquenez," vessels are frequently compelled to anchor outside. However strong the ebb tide may *set out* of the straits, the flood tide *sets in* still stronger, as the vacuum produced by seven hours ebb has to be filled by a *six hour flood*. These regular tides setting *in* and *out* of the straits, afford great facilities in the navigation of these waters. If strong tides, however, form an objection to "Benicia," protected as she is from violent gales, the objection is more potent against San Francisco, where the tides are much stronger than in the straits of Karquenez. This objection, however, is futile, as is proved in New York where the tides in the East river are much stronger than any where in the Bay of San Francisco. The strength of the tide, as ascertained by the tide log thrown from the United States sloop Warren, at anchor in the "straits of Karquenez," and in San Francisco roads, is known to be from one-eighth to one-fifth the stronger in the "roads at San Francisco," than in the port of Benicia. \*

\* \* \* \* I omitted, in the proper place, to mention another difficulty often encountered by vessels departing as well as entering the port of San Francisco: I allude to the impenetrable fogs, which, during the summer season, *i. e.* from April to October, envelope San Francisco and the southern shore of the bay, which renders the shoals and rocks above mentioned doubly dangerous, from which the northern shore and the track to Benicia through the Raccoon straits, are almost *entirely exempt at all times*.

THOMAS AP C. JONES, U. S. Navy.

WASHINGTON CITY, August 29th, 1850.

From the above, it will be seen, that the direct route from the sea to Benicia is entirely different from that to San Francisco; that it is free from the sunken rocks, sand spits, extensive shoals, islands of rock, impenetrable fogs, whirling tides, and other dangers which beset the route to San Francisco and thence to Benicia; and that if ships, destined for the latter port, are still compelled to go out of their way to enter at San Francisco, the average detention, <i>winter and summer</i> , would not be less than five days each. During the first week of July, thirty-six vessels arrived at San Francisco. As this is far below what it must be hereafter, it will be safe to put down the weekly arrivals at forty. Suppose three-fourths of these to be bound for Benicia, and that the thirty ships average forty passengers each, making 1,200 per week, or 62,400 per year—five days each, make 312,000 days, which, at the low average price of labor, including mechanics, &c., of \$10 per day, gives an annual loss of.....	\$3,120,000
Add to this, the detention of 1,560 ships and crews, (with increased insurance,) to say nothing of the perils of the San Francisco passage among the rocks, shoals, and whirling tides, 5 days each, and the loss from this cause, will amount to at least.....	3,120,000
Making the aggregate cost of the useless ceremony of calling to report at San Francisco.....	\$6,240,000

We next insert the official letter of Commander Z. F. Johnston, U. S. N., who has resided several years on those waters, and whose high character and disinterested position are guarantees for the truth of his statement.

NATIONAL HOTEL, Washington, Aug. 27, 1850.

SIR: In reply to your inquiry of this morning, I have to state that there is one reason alone, in addition to the many others that might be urged, which I consider conclusive upon the necessity of establishing a port of entry at Benicia; and that is, that it is clearly the *natural* head of ocean navigation, and evidently the only proper point for the meeting of the sea-going ships with the smaller river crafts and steamers, in which the upper trade of the Sacramento and San Joaquin rivers must always be carried on for the immense supply of the mining regions. Above that point, the large ships are frequently getting aground on the numerous shoals of Suisone bay; and the navigation of the waters below Benicia, through San Pablo bay, &c., to San Francisco, by the river crafts and steamers above named, is so extremely difficult and dangerous, as to render it impracticable to effect it without imminent peril of life and property. In making the attempt, I have known many of those crafts, driven back in extreme peril, to take shelter at Benicia and its vicinity. The hazard has been constantly attended, not only by numerous delays, but by grievous sacrifice of life and property. There have been, to my knowledge, as many as *two or three drowned bodies a day*, driven even up into the straits as *victims* of this perilous navigation. A steamer, purchased at a cost of twenty-five thousand dollars, to carry on the fresh beef trade between a point opposite Benicia and San Francisco, frequently lost her entire cargo by delays, and was forced to abandon the enterprise on account of the danger and difficulty attending the navigation.

I am, very respectfully, your obedient servant,

Z. F. JOHNSTON,  
Commander U. S. N.

E. COOKE, Esq.

As germane to this branch of the subject, and confirmatory of the facts set forth by the petitioners residing in the upper cities of those waters, as to the necessity of establishing a port of entry at Benicia, the following extract from "Three Years in California," by Walter Colton, U. S. Navy, is inserted:

"**BENICIA.**—This town, on the straits of Karquenes, has the advantage of a *bold shore, quiet anchorage, and depth of water for ships of any size*. Even without being a port of entry, it must become, in time, a *large commercial depot*. The *small craft* which float the *waters of the Suisan, Sacramento, and San Joaquin*, and which are *ill suited* to the *rough bay below*, will *here* deposit their cargoes. It has been selected as the most feasible site for a *navy yard*, and the army stores are already housed on its quay. It was first selected as the site of a city by Robert Semple, president of the Constitutional Convention, and rose rapidly into importance under his fostering care, and the energetic measures of Thomas O. Larkin."

Since preparing the pamphlet, to which this is a supplement, several documents have been received properly belonging to the FIRST DIVISION therein embraced, shewing

that there was still a more *positive* cause for the continued monopoly at San Francisco than the mere historical reasons therein enumerated. In 1847, a survey and sale of lots at San Francisco was made by military authority. The military collector became an extensive proprietor. And when ships began to arrive, and it was ascertained that thousands of dollars on each cargo could be saved by discharging them at Benicia, a positive prohibition, for that purpose, was interposed by the collector. Ships were flocking in from all parts of the world. It was a decisive crisis for San Francisco. If she could retain the monopoly, her destiny would become fixed, and millions would be realized by her proprietors. Hence the prohibition above named; the proof of which is abundant and universal. At present we need quote but one authority. The deposition of Capt. William D. Phelps, of Lexington, Massachusetts, who has been 10 years engaged in trade on the coast of California, fully confirms the above position. It has been placed in the hands of the Senate Committee, where it can be examined. We can only quote briefly from it. "About the time of the breaking out of the Mexican war," says Captain Phelps, "I entered my cargo at the custom-house at Monterey, being the only port of entry then on the coast, having paid about 100 per cent. on the invoice; in consideration of which I was licensed to proceed to, and trade at any port or place on said coast, or its rivers and bays, unmolested and without hindrance. \* \* \* In May, 1848, I went to San Francisco with the brig Malek Adhel, belonging to myself and merchants at Boston, having a part of said cargo on board, and applied to Capt. J. L. Folsom, then collector, for permission to proceed to Benicia, for the purpose of trade and the greater security of the vessel. This was refused; and I was convinced at the time, and have been ever since, that the object of said Folsom was to prevent the sea-going vessels from going to Benicia with their cargoes, or for repairs, as it would effect the interests of the landholders and others interested in building up the town of San Francisco, (he being one interested;) and this object was further demonstrated by the fact," continues Capt. Phelps, "that a few days after, a *foreign vessel*, with a *foreign cargo*, was allowed by the *said collector* to pass *by*, and above Benicia, up the Sacramento river to *trade, without let or hindrance.*"

This statement exhibits a sample of what is believed to have been the invariable practice of the military custom-house, showing clearly the system of policy by which the monopoly of trade has been continued at San Francisco, to the exclusion of Benicia; and furnishing, in addition to those first named, a full solution of the mystery of the rapid growth of the former city, at the expense of the latter. The same influence—that is, the San Francisco influence—we find is still exerted to defeat this application; and the question now recurs, will this Government become party to this wrong, and sanction the continuance of this grievous injustice to the thousands who petition for redress, and to the great interests of our national commerce?

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**NOTE.**—It has been said that all the difficulty and expense attending the discharge of cargoes at San Francisco can be avoided by the erection of the necessary wharves. This, it will be obvious, will be only changing the expense from lighterage to wharfage. It will be seen by late papers from that city, that the contract price for building a wharf and grading, in one instance is \$338,000, and in another \$480,000. This can be had for nothing at Benicia. Now the price of wharfage must always be in proportion to the cost of the improvement; and hence, this immense consequent difference in the cost of landing at San Francisco, must ever remain a heavy tax upon the shipper and consumer. But this done, by what power can you chain and hold in peace "the unchangeable winds and fog from the ocean," which, according to the official report, "rush over the highlands, and fall upon the town and shipping with an impetuosity almost irresistible, whether in the streets of the town, or in the roadstead before it?"

Here, it may well be asked, "why is this opposition to the pending application?" Rightly viewed, it becomes its highest recommendation. It cannot be waged without a motive. If Benicia be not the better port, this measure will not effect San Francisco. Her commerce has already become so fixed, and her influence in wealth and population so strong and powerful, that unless the port of Benicia be greatly superior—unless, indeed, it be *incomparably superior*—as a safe and convenient harbor for a great commercial mart, San Francisco has nothing to fear from its being made a port of entry. If, then, as is self-evident, this opposition betrays her fears, and these fears thus acknowledge this pre-eminent superiority, the whole case is admitted; and the earnest appeals of the mining population, and the interests of commerce every where, require the immediate adoption of the measure.

# BENICIA.

## SYNOPSIS OF REASONS WHY IT SHOULD BE MADE A PORT OF ENTRY.

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In support of the pending application for the establishment of a port of entry at Benicia as set forth in the following petitions, and to counteract the unexpected *local* and *personal* opposition said to be arrayed against it, the following brief synopsis of the facts and official statements, now in the hands of the Committee on Commerce, is respectfully submitted:

The leading petition in this case, it will be seen, among other things, states that "from several official surveys lately made of the great bay of San Francisco, 'Benicia' has been found pre-eminently, above all others, to possess the requisite facilities for a large sea-port." But it has been asked, with somewhat of an air of triumph, if the advantages of Benicia are truly thus pre-eminent, why is it that San Francisco was selected as the principal point of concentration for the immense tide of trade and emigration, which the discovery of gold has been, and still is, attracting to California, and how do you account for its rapid and extraordinary growth? This question is briefly answered by the 1st four clauses of the petition from the merchants and residents of Benicia; in confirmation of the truth of which, and of other facts therein stated, we proceed to add the authentic and official statements of several distinguished officers of the Army and Navy of the United States.

### *First. Copies and abstracts of sundry memorials to Congress.*

To the Senate and House of Representatives of the United States in Congress assembled:

Your petitioners, merchants and residents of Benicia, California, would respectfully represent to your honorable bodies the necessity which exists for making this city a port of entry; for that purpose we beg to submit to your consideration the following facts: During the continuance of the Mexican war, and for some time after the signing the treaty of peace, San Francisco was the *only port* generally known on the great bay of San Francisco. This was owing to the fact that the topography of the country, and the navigation of its waters, had been up to that time imperfectly examined and understood, and that there were few or no inhabitants east of the straits of Karquinez. The discovery of gold in the great valley of Sacramento and San Joaquin induced a spirit of emigration, and awakened the enterprize of the whole world in pursuit of the mineral wealth of California. As a necessary consequence, the whole tide of trade and emigration was directed towards the *only port then known* on the bay of San Francisco, as answering the purpose of debarkation and transhipment to the interior, and the result has been the extraordinary growth of San Francisco. Meanwhile several official surveys of the great bay have been made, and Benicia has been found pre-eminently, above all others, to possess the requisite facilities for a large sea-port. This fact is now so

well understood, even in our Atlantic cities, that many shippers of goods from thence have directed their supercargoes and consignees to discharge their cargoes at Benicia after entering them at the custom-house at San Francisco. The State legislature have granted to Benicia an act incorporating it *as a city*. American ships are constantly arriving from foreign and home ports, after having been subjected to the expense and delay of entering their cargoes at San Francisco, and the foreign and internal trade of the port is already greater than any sea-port in California, except San Francisco. This trade is rapidly increasing in importance, and imperatively demands the removal of the restrictions under which it at present suffers, owing to the exclusion of foreign vessels. The position of Benicia is commercially the most central of any site upon the bay of San Francisco. The access to it from the ocean, from which it is distant 30 miles, is perfectly practicable, through a deep and wide channel, in which there are no obstructions whatever. It is the point most easily approached from the mines, offering the best and safest anchorage below the delta of Suisone bay, formed by outlets of the rivers Sacramento and San Joaquin. It is located upon the northern shore of the straits of Karquinez, and along a portion of over a mile in extent of its water front, the channel runs so near the bank that ships lay along side and discharge their cargoes without the intervention of launches or scows. The expense of landing goods at this point is consequently from 5 to 8 dollars per ton less than at any other point on the bay, while its comparative proximity to the mining region gives it an additional advantage in the relative cheapness with which goods may be transported thither. The difference in the cost between this and other places on the bay is about 33 $\frac{1}{3}$  per cent., which, together with the difference in *landing expenses*, would be saved to the consumer were this point made a port of entry. Benicia has already been selected as the dépôt of the United States mail steamers, and as the United States military station and head quarters in California. Several of the ships of the United States Pacific squadron, among which are the sloops Falmouth and Preble, and the frigate Savannah, are anchored here. We advert to these facts as collateral evidence of the correctness of the foregoing statements, and of the justice of our claims upon your early and favorable consideration of our petition. We beg leave, respectfully, to refer you, for further information, to the official report of Commodore Jones to the Secretary of the Navy, and to the reports of Gen'l Smith to the Secretary of War, and also the report of the joint commission of Army and Naval officers upon the location of the naval dépôt and navy yard upon Mare island, in the immediate vicinity of Benicia. To these reports we would earnestly solicit your attention, especially to those of Com. Jones and Gen'l Smith, in which *Benicia alone* is mentioned as the natural terminus of the northern route of the great National Railroad, which it is expected, at no distant day, is to connect the Atlantic with the Pacific. Your petitioners, for the foregoing reasons, would most respectfully solicit your early attention to the importance of passing an act establishing Benicia a port of entry, deeming it to be a measure of great importance, not to them alone, but to the shippers of goods, both from foreign and domestic ports, to the consumers of goods in the interior, and to the true interests of the vast and rapidly increasing commerce of California. And petitioners will ever pray, &c.

The above petition is numerously signed, embracing the names of several gentlemen who are extensive owners of property in San Francisco.

Several additional petitions from most of the young and flourishing towns and cities in the vicinity of the mining regions have also been referred to the Senate Committee on Commerce, and among them is one from the merchants, land holders, and other citizens of Sacramento city:

Setting forth "that it would greatly promote the interests and convenience of the mining population of California to have Benicia made a 'port of entry'; that it is eligibly located for that purpose, possesses a good and safe harbor, and that its relative position to the northern and southern mines will enable emigrants to reach their destination with safety and economy, and likewise *promote the general commercial interests of California, &c.*" This memorial is signed by many of the principal men of wealth and character in that city.

Also one from the town of Fremont, a flourishing city opposite the mouth of Feather river, and one from the flourishing town of Vernon, each setting forth similar facts to the above, and praying that Benicia be made a port of entry.

Also several other memorials, and especially from the large and rapidly growing towns of Marysville and Yuba city, each setting forth "that they, as well as the whole mining population of the country, are greatly inconvenienced by there being *no other port of entry than San Francisco* on the waters of that bay; *that the entire commerce around them is carried on in vessels of a small size, unfit to navigate the bays of San Pablo and San Francisco*, and urgently requesting that Benicia be opened to foreign trade, it being easily and safely reached from the sea by the largest ships, whereby they may be enabled to procure their supplies," "without being exposed to a navigation which must of necessity be carried on by a class of vessels utterly unfit to encounter the strong winds of the bays before mentioned."

Here follows the memorial of the Presidents of fifteen Insurance Companies of the city of Boston, who, in view of the numerous batches of re-claimers returned on them on goods insured and damaged in landing, on account of the danger and difficulty of discharging cargoes at San Francisco, unite with the principal merchants and shippers of that city, engaged in the California trade, in asking for a port of entry at Benicia:

"The undersigned, underwriters, merchants and shippers, and others, of the city of Boston, interested in the prosecution of commerce on the Pacific, respectfully represent, that from advices received from their correspondents and agents in California, they believe that the interests of commerce would be greatly promoted by the establishment of a port of entry on the straits of Karquinez, at the head of ocean navigation, and that an *immense* saving would thereby be realized to the shippers and consumers from the much greater *facility* and *safety* in discharging cargoes at Benicia than at San Francisco, and they therefore earnestly pray that a port of entry be established at Benicia, in Upper California, with as little delay as practicable."

*Boston, August 14, 1850.*

Signed as above stated by the presidents of 15 Insurance companies of Boston, and the principal merchants and shippers of that city.

*Extract from one of the New York memorials.*

The undersigned, shipping merchants and others, interested in the com-

merce of the Pacific, residents of the city of New York, respectfully represent, that in consequence of the delay, danger, difficulty, and enormous expense of reporting and discharging cargoes at San Francisco, California, serious losses have been invariably sustained, by those engaged in the trade, which may be wholly avoided by establishing a port of entry at Benicia, on the straits of Karquinez, that place being the head of sea navigation for large ships, with a deep channel close in shore, protected from the winds, holding the nearest approach to the great valleys of the Sacramento and San Joaquin, and easily accessible from the ocean. They, therefore, being *convinced* that the great interests of commerce *require* that it should be permitted to seek its most advantageous channel, without being *sacrificed to* or *impeded by* any *local interest*, respectfully pray that a port of entry be established at Benicia, in Upper California.

NEW YORK, August 8, 1850.

Signed by "Edwin Bartlett, Alsop & Chauncy, Howland & Aspinwall, Grinnell," and other leading shipping merchants, and by the presidents of the principal insurance companies in New York.

We regret that we have not before us, for insertion in this connexion, a copy of the very clear, forcible, and conclusive paper now in the hands of the committee, furnished by Lieut. Maury, chief of the bureau of hydrography, astronomy, &c., as well as many other official papers, all in earnest recommendation of this object.

#### FIRST DIVISION.

Under this head it is proposed to shew, historically, from the official statements of Com. Jones, by what train of accidents San Francisco obtained the *monopoly* of trade on the bay, and has since retained it. This will be done by quoting as near as may be the *precise language* of such extracts from his report as are deemed necessary to illustrate the subject; and, he says:

1st. "Yerba Buena (now San Francisco) became, a few years ago, a trading post for hides and tallow, and there being no civilized inhabitants except on the bay and at Sutter's fort, whose chief occupation was the rearing of cattle, it had of course *no inland trade*."

2d. "Early in the Mexican war, there being no other *settled* point on the bay, it became a naval and military station, and port of entry, for 'the war contribution.' This at once gave it an impetus and importance to which for commercial purposes it had no intrinsic claim."

3d. "When peace came, the same state of things was continued, 'and rightly so, until the removal of the consumers to the gold region, along the base of the Sierra Nevada.' \* \* \* From *that moment* it became the *most unsuitable* and *inconvenient* point on the bay for a commercial dépôt *from whence to supply the mines*."

4th. Yet, notwithstanding, when the news of the discovery of the gold mines went abroad, the commercial world at home and in Europe, *knowing no other place on the bay*, made all their shipments to San Francisco.

Shortly after, to wit, March 3d, 1849, our Government, acting in the same want of correct information as to the topography of the bay and the surrounding country, established the custom-house, and thus continued the *monopoly* at San Francisco.

5th. Owing to these accidental causes, "San Francisco," in the language of Com. Jones, "despite its *natural inconveniences* and *real disadvantages*,

as the only port of entry on those bays, still enjoys the *entire monopoly* of a trade, which, for tonnage, is not exceeded by more than two or three of our Atlantic cities.” And this fully accounts for its rapid growth, and for the temporary embarrassment which has been thus thrown upon its younger sister, *Benicia*.

## SECOND DIVISION.

The monstrous wrong and injustice which must result to the great body of the people of California, as well as the loss which must accrue to the revenues of the Government, from continuing this exclusive monopoly to San Francisco, are fully shown by the official reports of Com. Jones and Gen'l Persifor F. Smith, and other distinguished officers of the Government.

These wrongs, and this injustice, and this loss to the revenue, resulting from this monopoly, consist, 1st, in the loss to the *shipper* and the increased cost to the *consumer*; 2d, in the *frauds* which grow out of the practice, (rendered necessary by the present crowded state of the shipping at San Francisco,) “*of transhipping cargoes to the upper ports, without landing them;*” a revenue loss, which Commodore Jones sets down at “*one-half;* at any rate, to an amount greatly beyond the additional expense of all the custom-houses, the creation of which he had suggested,” to wit, Benicia, Sacramento, Stockton, Monterey, and San Diego.

These conclusions rest, first, upon the facts shown by Commodore Jones, who says that “neither the anchorage nor land about San Francisco is sufficiently capacious for one-half the commerce *now* centered there; and that, in consequence of its constant exposure to the heavy gales which prevail there; of the extensive mud flats before the town, making the distance more than half a mile from the shipping to the shore; the suspension for days together of all communication between the town and shipping by reason of the strong tide and cross sea,” together with the fact that “level space on shore for warehouses is so contracted, and the cost of landing and storing goods is *so enormous*, and the danger from fire is *so imminent*,\* that two-thirds of the goods *now* in the country are still afloat in the harbor.” To this contraction and scarcity of space may well be ascribed the monstrous exorbitance of the rents, unparalleled in any commercial city in the old or new world, and the consequent enormous and ruinous charges for storage, agencies, and commissions, which have swallowed up the entire profits of so many cargoes. Again: “Such is the exposure and delay in landing cargoes, that many instances have occurred, where more than the entire freight of large ships, from home, has been absorbed *in landing*, which the charter party required to be delivered on shore.”

2d. The same facts are reasserted and confirmed by General Persifor F. Smith, in his several official reports to the War Department, bearing date April 5th and April 9th, 1849, as printed in Senate Doc. No. 18, pages 693 and 698-’9, and House Doc. No. 17, pages 717, 721, 722, and 723. In the first of these reports General Smith, speaking of the necessity of finding some suitable place on the Bay of Francisco, “combining good climate, convenience of supply, and facility of movement for the establishment of the general military dépôt of the Pacific,” says, “the town of San Francisco is no way fitted for military or *commercial* purposes. There

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\* Prophetic, as the report was written months before the two last destructive fires, by which the best and wealthiest part of the town has been laid waste.

is no harbor, a bad landing place, bad water, an inclement climate, and it is *cut off from the rest of the country*, except by a *long circuit around the southern extremity of the bay*. In time of war, enemies' troops could be landed many miles south of the entrance of the bay on the sea beach, and *thus cut it off by a short line across the Peninsula*, on which it stands." The General, then, proposes going the next day, "with other officers of the army and navy, to examine the straits of Karquinez, (Benicia,) said to combine most advantages," and adds, "I hope that in fixing the port of entry, capital, or other public places, the law will leave the President the selection; otherwise, *private interests*, already involved in *speculation here*, (San Francisco,) will, by **MISREPRESENTATION**, lead to a *very bad choice*." (See House Doc. No. 17, page 717.) We will not say that this prophecy has become history.

Under date of April 9th the General further states, that according to the design above expressed, he proceeded in company with Commodore Jones and several other officers to the straits of Karquinez, which he reached against "a head wind" in 2 hours and 45 minutes, "showing that a vessel could easily reach this point from the sea *in one tide*." "We had soundings," he says, "carefully taken the whole distance, and found nothing less than five fathoms, corresponding with the depth marked on Wilkes' chart of the Exploring Expedition." The channel is from two to five miles wide, except in Raccoon and San Pedro straits. \* \* \* \* \* "The officers of the navy, those of the joint commission of engineers and naval officers, the officers of the coast survey, and such staff officers as were present, were *all* of opinion that there was a perfectly *good and sufficient beating channel*, without obstruction, *for vessels of war of the largest class*, from sea to the *upper end of the straits of Karquinez*," (adjoining Benicia.) Page 721. House Doc. No. 17. The General adds, page 722, "As the expense of landing stores at San Francisco is *enormous*, and *difficult every where else on the coast*, where lighters are necessary, I propose, if the land can be procured without expense to the United States, to *establish immediately the quartermaster's dépôts at those points*, so as to have the stores now coming out landed there. There are no warehouses here (San Francisco) to be had, and they can be built there cheaper than here, on account of the *expense attending the landing of the lumber here*."

For the above reasons, General Smith states in his despatch, May 1st, 1849, House Doc. No. 17, page 739: "The general dépôt has been established at 'Benicia,' on the straits of Karquinez; and I beg the Quartermaster General may be advised of the *change in the location*, in order that *all stores* may be shipped for 'Benicia,' Bay of San Francisco." Again, page 740, he says: "The *enormous expense* attending the landing and shipment of goods at San Francisco will be obviated by the removal of the dépôt to *Benicia*, on the straits of Karquinez, where the **GENERAL DÉPÔT** is established. Brevet Colonel Casey is there with two companies." And again, page 747, same Doc., speaking of the eligible position of Benicia, the General says: "Benicia, about 25 or 30 miles from the sea, *accessible to the largest ships; just below the junction of the Sacramento and San Joaquin rivers*, is the *general dépôt*."

In further testimony of the disadvantages attending the harbor at San Francisco, and the superiority of that of Benicia over it, the accounts of General Smith sent home to Washington will show a saving to our Government of over *one hundred thousand dollars*, in the mere landing of Government stores at Benicia during nine months, these expenses being less by

that sum than they would have been had the stores been landed at San Francisco, as proved by his vouchers for expenses of landing a cargo at the latter place during this time; as will also several recent official communications, from distinguished officers now stationed there, showing in *one case* "a saving of \$9,600 in cash and two months in time, by discharging a cargo of lumber from Maine at Benicia, instead of San Francisco;" and in a very recent case, as certified by the Quartermaster General, "a saving of \$15,000 and three months time;" which latter documents have been placed in the hands of the committee. It is also worthy of notice, that owing "to the danger and difficulty of discharging cargoes at San Francisco, numerous batches of reclaimers on goods damaged in landing, have been sent back to the insurance companies, in amounts almost equal to the premiums for insurance; and it is officially stated that no office will longer grant policies for any vessel to lay at San Francisco. To this fact may be ascribed the petition from the numerous insurance companies of the cities of Boston and New York.

These statements are by no means made with a view to detract from the just merits of San Francisco, whatever they may be—(indeed, many of the applicants for the pending measure are largely interested in property there)—but for the purpose of showing the *necessity* of granting to the great interests involved the remedy contemplated by this application, to wit, the privilege of choosing the most eligible port, and the means of modifying and reducing the monstrous and exorbitant expenses, losses, and exactions to which this vast commerce is *now* subjected.

How are these great evils to be avoided? How is this great shipping and commercial interest to be relieved from this grievous and intolerable burden? How are the wants of the miners and consumers in the great interior, soon to amount to millions, dependant upon foreign countries for the *necessaries of life*, to be relieved from the enormous sacrifice consequent upon the existing *MONOPOLY* of this vast trade at its present point? Com. Jones answers: "The true and natural solution of these questions will be found in the principle of free competition in trade and commerce;" in breaking up the *monopoly* which enchains their operation to a *single point*, and allowing them to seek, untrammelled, the best and safest and cheapest points, as their preferred marts of exchange.

And may we not ask, shall that wild freak of accidental events which has given birth and temporary power to San Francisco, be permitted, by the strong hand of Government, to counteract and control the designs of nature? Will Congress neglect or refuse to unchain the vast commerce which she holds thus exclusively in her iron grasp, and set it free? Shall *private* interest or *local* opposition to a measure, so fair and just as the one now claimed, be permitted to prevail against the common wishes and the public good?

And this brings us to the immediate consideration of the claim set forth by the petitioners under the

### THIRD DIVISION.

It will be seen by the documents in the hands of the committee, *in express terms*, "that not one of the objections above stated as existing at San Francisco apply to the seaport town of Benicia," where, in the language of United States officers, "the shores are bold, and the largest merchant ships lay along the natural bank, at all tides and at all seasons, in perfect safety."

Under this head it may not be deemed improper to present a few extracts from numerous letters before us, from intelligent gentlemen in California, and even from papers published at San Francisco. The following extracts are from a gentleman of high character, who, although one of the owners at Benicia, is nevertheless largely interested in property at San Francisco. Under date of San Francisco, May 1st, 1850, the writer says:

"At length an arrangement has been consummated between Messrs. Howland & Aspinwall, of the Pacific Mail Ship Co., who, after trying San Francisco 14 months, have selected Benicia as the only place on the bay affording the necessary facilities for their head quarters." "Tomorrow morning we are to sign the papers by which we sell to Howland & Aspinwall a sufficient number of lots to afford accommodations for their line of steamers to Panama, to Oregon, to the Sandwich Islands, and of their independent line of coast steamers running to Mexican ports. Thus we control the shipments of treasure, and the importations of the more costly goods, not only from Europe and America, but from the golden East."

And again, under date of May 30th, the same writer states: "As I wrote you, every thing has been arranged with the proprietors of the Pacific mail steamers; and they have commenced buildings—wharves, coal depôts, reservoirs for water, *machine shops, a steam foundry, engine manufactory, &c., &c.*, at a cost of over \$120,000. The materials are all on the spot—100 men at work, and the entire establishments are to be completed in 3 or 4 months. We have made an arrangement with Mr. Shillaber, late of Canton, China, the agent of Howard & Son's line of ocean steamers, to make Benicia their depôt, conditioned *solely* upon its being made a port of entry. \* \* \* It is therefore of every importance, not to say of the most urgent and positive necessity, to the promotion of these great interests, and the general interests of our entire national commerce, that Benicia be made a port of entry *during the present session of Congress*. 'Tis true I have an interest in this measure; but, as you know, I am largely interested in property at San Francisco. In this matter I discard all local feeling, all private interest. I am working, not for myself alone, but for California. \* \* \* I tell you every consumer throughout our vast mineral regions is interested in the result. The already gigantic commerce of this infant State demands it; and the people have demanded it in their legislative address sent on to Washington by their delegation. \* \* \* We cannot see how it is possible for Congress, with a proper knowledge of the facts, to deny our prayer. We are demanding only a reasonable right. We ask only that commerce may be free and unfettered, according to the principles which have always governed our legislation—that trade may seek its most advantageous channel. Were the facts even less urgent, no harm could be done by making Benicia a port of entry, for it would add no additional cost to the Government, and it is then put upon the same platform with San Francisco and other places. If San Francisco be the better place, the trade will center there; if Benicia be the better place, it will go there; if both be good places, it will go to both, and thereby create that wholesome competition so necessary to the best interests of commerce. This certainly is but just and fair, and in accordance with the enlightened policy of our Government, not to create, and *perpetuate* by their legislation, a virtual MONOPOLY in favor of *one place* to the exclusion of others, to the detriment of com-

merce, and to the manifest injury of all the great interests of the country."

Here follow two or three extracts from several letters written by a gentleman, distinguished, not only in California, but in the Atlantic States, for his high character, intelligence, and public worth.

Under date of "San Francisco, 14th January, 1850," he remarks: "Unquestionably Benicia has many advantages, and is by far the best and safest harbor on the bay. One fact *alone* will speak volumes: the difference in the expense and charges for landing the army stores, during nine months, between San Francisco and Benicia, was, on equal quantities, one hundred thousand dollars (\$100,000) in favor of Benicia."

And again, under date of May 1, 1850, he says: "We have concluded a positive arrangement with Howland & Aspinwall for their steamers to go *direct* to Benicia. They will make it their dépôt, and have engaged to establish several large warehouses there. I have also made arrangements with the Russian (North) American Commercial Company, whose business I have most happily settled, and who have appointed me their agent. They will send us coal, lumber, and vegetables, and open an extensive trade. I have engaged to put them up a warehouse for their exclusive use, and we are to have the control of the trade to Sitka; but much will depend upon Benicia being made a 'port of entry' at this session; and I beg you to use every effort to effect it."

Again, under date of May 31, 1850, he adds: "I yesterday accompanied Mr. Bissel, agent for Howland & Aspinwall's steamers and the Pacific mail steamers, in the *Unicorn*, to Benicia, having in tow two large ships, loaded with lumber and stores—three other ships being already there, discharging their cargoes. Several other gentlemen have also purchased, among them Mr. J., of Valparaiso, Mr. M., of Mazatlan; and Mr. Mc., of San Francisco, another merchant of high standing, has purchased several lots; he will move altogether to Bencia *so soon* as Benicia is made a port of entry."

From a long letter, written by another gentleman, dated San Francisco, April 30, 1850, and published in the *New York Journal of Commerce*, of the 26th June, ult., this extract is taken. Speaking of other towns, the writer says: "Benicia, on the contrary, has increased greatly, and is a fine town. I think this place is destined to be *very large*. If San Francisco had not already so great a start, *Benicia could be made to supersede it*; for, in my judgment, it possesses *superior advantages*. The largest class of vessels can lay directly alongside the wharves, *saving the enormous cost of lighterage and other expenses*. The site of the town is every way desirable, and it is free from those rude blasts and endless hills which weigh against San Francisco. As we approached the town, the whole air was perfumed from the numerous wild flowers which bloom upon the surface of the surrounding country."

That part of the extract depreciating the merits of San Francisco is omitted.

But without multiplying extracts from the numerous letters before us, in commendation of the advantages of Benicia, let us quote from a more authoritative source. In the "*Alta California*," published at *San Francisco*, July the 2d, 1849, before Benicia had begun to assume her present importance, the gentlemanly editor of that paper, under the head of "*Benicia*," speaks thus:

"This is the rival of San Francisco for the empire of the Pacific. It is situated on the Straits of Karquinez, about 35 miles from the Ocean, on a

gentle slope, which becomes almost a plain as it nears the water's edge." \* \* \* \* \*

"Many buildings have been erected there of late. It is now made the head quarters of the Pacific division of the United States army. The large depositories of army, quartermaster, and commissary stores, have recently been removed from San Francisco to that place, and a site has been selected by Com. Jones for a navy yard, a short distance above the town. This place is certainly rapidly advancing in size and *importance*; but we do not doubt that its prosperity will always be dependent on that of San Francisco," &c. At this time, with her increased wealth and population, the editor, with his usual candor would, we doubt not, conclude that *she might depend upon herself*.

The next quotation is an extract from the editorials of the Journal of Commerce of May last, another paper published at *San Francisco*. The editor having just returned from a visit at Benicia, says: "Towards sundown, we climbed a richly carpeted knoll, as the golden light of day made beautiful each distant hill, and gazed with quiet pleasure on as gorgeous a scene as ever eye looked upon. Benicia is certainly a beautiful site for a city." Again he adds: "There is much activity evinced by the property holders *now* at Benicia, and they are effecting many improvements which promise to be of incalculable benefit." "Houses are going up *rapidly*, and a river steamer of considerable dimensions is under course of construction; while capital is at work in various ways, which must result in enhancing the value of property, and securing to this city a *permanent importance*." \* \* \* \* \*

"Many have opined, that the time is not far distant when Benicia will be a most *formidable rival of San Francisco*; but in this we neither concur nor *express a contrary opinion*, but studiously refrain from making any predictions whatever, for so many remarkable occurrences take place in these days to surprise one, that we consider such a course far the *safest for the reputation of our foresight*." "That Benicia will soon grow to be a place of great importance there is, in our mind, *no question*. But we cannot see how that is to affect San Francisco in the least." "We like a generous rivalry in all things, and see no reason why we should not have *two* large cities on this bay as well as *one*."

These statements, by intelligent editors, residing and holding property at San Francisco, of which they declare Benicia to be the rival, constituting a frank and honorable admission against their own interests, should, we think, be regarded as pretty strong testimony to sustain the claims of Benicia. But we pass to a still more authentic class of testimony.

Gen. Smith in his despatch, dated San Francisco, April 9, 1849, says, H. Doc. 17, pages 721 and 722: "The Straits of Karquinez are about 5 miles long, and from 1 to 2 broad; half-way up, the hills recede from the water, leaving a very favorable scite for a town, larger than is likely to exist any where here for a century to come; and on this inclined plain a town is now laid out, called Benicia." "A large vessel can lie near enough the bank to unload at several points, and in the whole extent by a small expense for wharves." "The road from the whole Southern country to the upper Sacramento crosses here at Benicia; during the season of high water, when the valley of the San Joaquin is overflowed;" (which is nearly half the year,) "this point has at *ALL TIMES* a *free communication with all parts of the Territory*." "As this point, (Straits of Karquinez,) has, in my opinion, *so many advantages over any other* on the waters

of the bay, for *commercial*, naval, and military purposes, I respectfully suggest, that the laws for establishing ports of entry, *depôts*, *admiralty courts*, &c., should not name the points of location, but leave them to be selected by the *President*; and that the *commissioners* now here be asked to examine and report *immediately*, in time for the action of the next Congress. At present there are no public establishments, and but *temporary* commercial ones at *any place*; but if commerce becomes once *FIXED*, it will be *hard to remove it* against the *private interests* of those who desire it to remain, *even under great DISADVANTAGES.*" These *wise and timely* suggestions, made 16 months ago, are conclusive of the necessity for speedy action. The already existing opposition has not only verified the prediction, but vindicated the wisdom of the warning.

Here may be the proper place to introduce an extract from the report of the select committee, appointed by the Senate of California to report to that body "on the derivation and definition of the names of the several counties of that State."

Under the head of the county of "Salano" the committee state, that "the town of Benicia, situate in this county, is *rapidly increasing in size* and *importance*, and will *soon RIVAL* the other towns that encircle the bay of San Francisco. The American squadron is stationed here, and many vessels lie at anchor. Here is the *only* passage to the interior, and consequently there is, perhaps, no point from which the active trade of the bay can be better observed. There is in front of the town a bank or promontory extending about *one mile*, which *precludes the necessity of wharves.*"

The following correspondence, embracing the opinion, on this subject, of Commodore Stribling, one of the most distinguished and talented officers of the U. S. Navy, can scarcely fail to give decisive strength to the recommendation of the petitioners.

"WASHINGTON, August 12, 1850.

"Com. C. K. STRIBLING, U. S. N.

"SIR: Enclosed I send you the copy of a petition, now before Congress, for the establishment of a port of entry at Benicia, on the Straits of Karquinez, California. As a resident of that country, in an official capacity, for the most part, since 1842, it is presumed that you are well acquainted with the topography of the bay of San Francisco, of its tributaries, and of the surrounding country. If I am correct in this, will you favor me with your opinion as to the eligibility of Benicia for the purpose indicated, and as a suitable position for the commercial metropolis of that now important section of our country; with such reasons to sustain your views as your knowledge of the facts and your own convenience may enable you to state.

"Your compliance with this request will greatly oblige one who has no other wish in the premises than the promotion of the public interests.

"I have the honor to be, with great respect, your ob't serv't.

"E. COOKE."

*Reply.*

"U. S. NAVAL ACADEMY, Annapolis, Aug. 14, 1850.

"SIR: In answer to your letter of the 12th instant, I take great pleasure in giving you my views in relation to the eligibility of Benicia, as the commercial metropolis of California. I must remark, however, that I have not seen the report of Gen. Smith or Com. Jones, or the joint commission

of Army and Navy officers, referred to by the residents of Benicia in their memorial to Congress; consequently my opinion cannot be influenced by any thing they have said.

“ Benicia is situated on the north side of the Straits of Karquinez, on ground rising gently from the water, and fronts on the straits and Suisone bay. The straits, I think, are about 3 miles long, with an average breadth of less than a mile. This *whole space* affords good and safe anchorage for vessels of the *largest class*, being protected from the strong winds which prevail in the winter from the southeast, and indeed, so far as I have information, from all winds that blow with violence.

“ The shore is so bold that large ships can haul alongside the beach and discharge their cargoes with perfect safety.

“ Amongst the advantages for building, Benicia has one not often found upon the site of a city. *Freestone*, of a superior quality for building purposes, is seen cropping out in several places, within the limits of the city, and is, I am informed, very abundant.

“ The well water of Benicia is very good, and *never failing streams* are near the city, and can be brought into it at a *very moderate expense*.

“ Benicia is near some of the richest valleys of California, where all the supplies of a large city can be produced.

“ The only pass fit for a ferry, from the southern portion of California to the north, is at the Straits of Karquinez. I believe there is no ferry, from these straits, until you reach Sacramento city; and if I am correctly informed, one cannot be established between these places without very great expense.

“ Benicia is, in my opinion, the *proper head of ship navigation*. I am aware that a different opinion has been expressed in favor of New York of the Pacific, and other places above the Straits of Karquinez.

“ Above Benicia the navigation is safe for *small boats and launches*.

“ From the sea to Benicia, (the distance being over 30 miles from the bar,) the navigation for the largest ships is safe and easy.

“ Benicia or its vicinity affords, in my opinion, the best site for a naval arsenal on the bay of San Francisco. The ease with which it can be defended from an enemy, having command of the sea, is also in its favor.

“ I believe the climate of Benicia is better than places near the sea, or those still further removed from it. But my experience does not enable me to affirm this.

“ The conclusion at which I arrive is, that Benicia is superior to any other place in the bay of San Francisco for the *COMMERCIAL MART OF CALIFORNIA*, and for the immense commerce already in existence, and certain to be greater, in consequence of the recent gold discovery in that country, and prospectively as the *CENTRE of a great trade with Japan, China, India, and the islands of the Pacific*.

“ I concur in the opinions given by the citizens of Benicia in their memorial to Congress for the establishment of a port of entry there, and believe the *true interests* of the country will be promoted by granting their request.

“ It may not be amiss for me to state, that I have no personal interest in the matter. I do not own, and never have owned, a foot of land in Benicia or any other part of California.

“ The above will, I hope, be of some service, as coming from one having had an opportunity of knowing something of California, and the *Bay of San Francisco in particular*.

“ With great respect, I am, your ob't servant,  
“ E. COOKE, esq.”

“ C. K. STRIBLING.”

Again, in page 950, House Document No. 17, is the following official statement:

"The new town of San Francisco is situated among sand hills, near the extremity of a narrow peninsula of some 60 MILES in length, washed by the Pacific ocean on the west, and by the southern arm of the bay on the east. The greater portion of this peninsula being extremely *sterile*, is but sparsely inhabited; and, consequently, nine-tenths of the immense amount of goods entered at the town of San Francisco are transhipped in launches and bay craft, up the Sacramento and San Joaquin rivers, for distribution among the various gold diggings."

The enormous charges are then spoken of for freight and storage, to wit: "6½ to 7 dollars per bbl. for flour to Sutter's fort, and \$3 per bbl. per month for storage at San Francisco. (The price in the Atlantic States is 12½ cts., or 1-24th the price at San Francisco.)" "These prices are not likely to be reduced until Congress shall establish a custom-house at the more convenient port of *Benicia*, on the straits of Karquinez."

In addition to these facts Com. Jones further states, in his report to the Navy Department, that "the channel from the ocean to Benicia, is no where less than one mile wide, with a depth of 28 feet of water in the *shoalest* place at the *lowest* tide. The anchorage within the straits is most ample for all purposes, and is perfectly secure from all winds. The water along the south front of the town is so bold that a dozen merchant ships of large class, among them the "Iowa," are now lying with stages made with their own spars to the shore. The building surface is undulating, and rising gently towards the hills in the rear. The hills and shores abound in freestone of an excellent quality; and what is of incomparable advantage to Benicia, no where between it and the "Butes," except at one point 18 or 20 miles above, does dry land approach nearer than 30 or 40 miles on opposite sides of the great basin of the Sacramento. Hence it will be seen, that the *only point* of land communication between *northern, middle, and southern California*, is at Benicia, on the straits, across which a horse-boat is now constantly plying."

"Whenever the vast and fertile country, between the Oregon and the straits and bay, shall be subjected to agricultural cultivation, as it soon must be, its products cannot find an outlet to the ocean, or to the mining regions, *at any other point*, comparable with Benicia, within 40 miles of which it is ascertained there are at this time sixty thousand head of cattle. And if ever the great national railroad is constructed across the Rocky mountains to the Pacific shores, a glance at the map of the Sacramento valley will point to Benicia as designed by nature's laws for its western terminus."

It is claimed, therefore, in view of the grounds above assigned, which are only a few of the many of the official facts before the committee, that a port of entry be established at Benicia—

1st. Because, there being "no practicable or convenient navigation for large ships above the straits of Karquinez," it is the head of ocean navigation, perfectly accessible to the largest sea-going ships.

2d. Because it is a fixed law of commerce that the entrepôt, or great mart of exchange, should always be as near as possible to the market to be supplied. That great law decided the location of Philadelphia where it is, instead of at New Castle or Wilmington, or at either of the capes below. That law established the commercial emporium at Baltimore instead of Port Tobacco or Annapolis—the latter of which had several thousand inhabitants before Baltimore had a dozen houses; at New York, instead of

Fisherman's Bay and Perth Amboy, where all the trade with Europe and the Indies was carried on before New York was settled; and in Europe and Asia, at London, Cronstadt, Canton, and Calcutta, instead of points nearer the sea; and we might, if necessary, enumerate a thousand additional illustrations of the principle.

3d. Because we hold it to be settled and established, beyond all question, by the official reports of General Smith and Commodore Jones, confirmed by the opinions and statements of other distinguished officers and intelligent gentlemen who have thoroughly *examined* the topography of the bay and surrounding country, that Benicia, occupying a similar position with respect to the Pacific which New York occupies with respect to the Atlantic ocean, is THE point on the bay designed by nature as the great commercial metropolis of California and the Pacific.

4th. Because reliance ought to be placed upon the authentic official reports of our distinguished naval and military officers, rather than upon the statements of interested or prejudiced individuals who have never made a scientific or practical examination of the subject; and because, in view of its unrivalled advantages for naval and commercial purposes, as well as for means of defence, these officers have established at Benicia, and Mare island, in its *immediate vicinity*, the general military dépôt, navy yard, and depository of the public stores for the Pacific.

5th. Because it is a matter of the first importance to select and grant Government facilities to *that place* or *landing* on those waters, for our commercial marine, which will tax least the active industry of the people; where the ocean vessel can meet the river craft, both in safety; where land communication may be had with every portion of the State;\* and where the great American railroad, if one is built from Lake Michigan or St. Louis, must necessarily terminate to receive and exchange the products of Asia, Europe, and America. This spot is Benicia.

6th. Because the central position of Benicia, in the vast and rich valleys of San Joaquin, Sacramento, Salano, Nappa, Sonoma, and Conta Costa, all diverging from it, make it the *centre*, of which these valleys are so many radii, and hence the most eligible point at which their golden products can meet with, and be exchanged for, the products of the world. Because it is the only place on the whole bay where a *direct* land communication can be had at all seasons of the year, on solid ground, on both sides of the straits, with the vast agricultural and mining regions of the north, northeast, south, and southeast. Because, also, ships can discharge their cargoes, as has been shown, within one-twentieth the time, and for one-twentieth the expense, which they can at San Francisco, at a point *nearer* and *more convenient* to the great body of the consumers; and offering the greatest facilities for the transhipment and transportation of merchandise from the sea-going vessels to the interior, whether by the river craft or by land conveyance, to the consuming region.

7th. Because it occupies the key, whether by land or water, to the entire commerce of those extensive regions, and holds the only position, in a *narrow strait*, on the passage to the interior, from which the active trade of those waters can be observed and guarded, and by which smuggling to the numerous points on the upper bay and river can be effectually detected and prevented.†

\* Vide the numerous petitions from the thriving cities of the mining company, as to their river craft and internal trade, &c.

† See Report of the Select Committee above quoted.

8th. Because of its entire freedom from the storms of the ocean; and because, as alleged by General Smith, (see House document 17, pages 721, 722,) "it is the most favorable site for a large city, and has so many advantages *over any other place on the bay* for *commercial, naval, and military purposes.*" Because, as he also says, "there is no other point entirely covered from *all winds*, and consequently no point at which vessels can lie *close in shore*, and discharge their cargoes in perfect safety." And because, therefore, it is earnestly recommended by him, and other distinguished officers, as a port of entry.

9th. Because, in the opinion of Commodore Jones and other officers on that station, it will prevent constant frauds upon the revenue, and save immense loss to the Government, resulting from the existing necessity of transhipping goods at San Francisco without landing them; while the expense will scarcely be increased beyond that of keeping up a mere port of delivery at Benicia, which is now allowed them by the collector.

10th. Because, as has been above shewn, of its marked superiority as a site for building and building materials; embracing an ample area of beautiful rolling land for a large city, remarkable for the purity of its waters, the facility with which living streams can be introduced, and the salubrity of the climate; forming the sea border of an extensive, rich agricultural country, and a perfectly "defensible position against any possible attack from *any enemy.*"

11th. Because a port of entry at Benicia, according to an accurate calculation of Commodore Jones and others, (see official statements,) will save *millions* annually to the hardy settlers and consumers of those distant regions. And, finally, because a commerce so growing and immense as that now centering at California from all parts of the world ought, according to the principles which have ever governed our legislation, to be left free and unfettered, to seek its best and most advantageous points of operation, without being trammelled by a **MONOPOLY** which now enchains it to a single point on the bay, subjects it to ruinous delays, and loads it with grievous and *enormous* exactions.

These are some of the reasons, hastily sketched, why the establishment of a port of entry is claimed at Benicia.

This is all the petitioners, and other friends of the claim, ask from Congress. They solicit no diminution of the Government patronage which justly belongs to San Francisco. But, in behalf of the toiling thousands in the mining regions, in the name of equal justice, in behalf of the *true* rights and pressing wants of California, and the great interests of commerce *every where*, they earnestly ask, as a right, that Benicia be placed upon that fair footing of equal competition with her neighbors, to which it is claimed her intrinsic merits and her extraordinary advantages incontestably entitle her. This is all they ask; and to grant this is, they believe, but just and fair, and "in accordance with the enlightened policy of our Government—not to create and *perpetuate*, by legislation, a virtual monopoly, in favor of one place to the exclusion of others, to the detriment of commerce, and to the manifest injury of the public interests."

## APPENDIX.

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It may be asked, if *all* the *advantages*, both to commerce and the country, upon which a port of entry is claimed at Benicia, are admitted to exist, why will not the *mere* making *it* a port of delivery for the discharge of cargoes, after the same have been entered and paid for at San Francisco, fully meet the exigency?

The *reasons*, to sustain the negative of this question, are *numerous*, and it is believed conclusive and unanswerable: whether we look to the uniform practice of the Government, or to the *geographical*, *commercial*, or *fiscal* aspect of the question.

First, then, the practice of the Government sustains this claim, and vastly more than sustains it. A few examples will show this.

In *Rhode Island*, there is a port of entry at Newport and one at Providence, on the same waters, and in direct range with each other. In *Connecticut*, there is a port of entry at Middletown, on the river, some little distance above New Haven, where there is also one: besides several others in less distance from each other than between Benicia and San Francisco, with not one-fiftieth the amount of commerce for *all*.

There are separate and distinct ports of entry at *New York*, at *Perth Amboy*, and at *Newark*, all on the same inland waters; the one being about 26, and the other, (*Newark*,) only about 9 miles from *New York*.

*Wilmington*, *Philadelphia*, and *Burlington*, on the river, only a few miles above the latter, have each separate ports of entry. *Annapolis* and *Baltimore*, about 24 miles apart, (the former made so long before the latter,) on the same bay, are ports of entry; so are *Norfolk* and *Richmond*. But without proceeding further, *Alexandria* and *Georgetown*, only about 7 miles apart, on the same river, with a commerce less than one-hundredth the value of that of the bays of *San Francisco* and *San Pablo*, are and long have been, each distinct ports of entry!

Thus much for precedents, in which we find abundant warrant for the claim set forth for Benicia. But we have still stronger grounds, and among the other reasons, why the making Benicia a *mere* port of delivery would be wholly insufficient to remedy the existing evil, and promote the best interests of the Government and the country, are the following:

First, the geographical position of the waters on which *San Francisco* and *Benicia* are situated, cannot be likened, at all, to that of a mere river, or to that of any of the cases above cited as precedents. In each of those cases, separate ports of entry were established on the same contiguous waters; frequently in a direct line of coast, and at points *having the same great section of back country to accommodate and supply*. Not so in this case. It presents not only an entirely different, but an *infinitely stronger claim* to a port of entry, than *any* that can be made out by either of those precedents.

The waters of the bay of *San Pablo*, adjoining *Benicia*, and those of the bay of *San Francisco*, embracing the town of that name, in every

geographical aspect, and for every maritime, practical, and especially *for every commercial purpose*, constitute *separate and independent bodies of water*.

A separate and independent *port of entry*, instead of a mere *port of delivery*, is therefore claimed at Benicia. Because it will be seen, as well from official statements as from the map itself, that the large body of waters—erroneously denominated the bay of San Francisco, is actually divided at its entrance from the sea into two distinct *northern* and *southern* sections; the one turning to the right and forming the bay of San Francisco *proper*, and the other to the left through the Raccoon and San Pedro straits; forming the bays of Suisan, San Pablo, and the straits of Karquinez; constituting, *for all commercial purposes*, *two separate bays, united only by a common inlet*; and *each* having its own, relative and appropriate, *but entirely different, section of country* to accommodate and supply.

San Francisco, on the one hand, (situate near the extreme point of a sandy peninsula, nearly sixty miles long)—from its consequent detached position from the main land, where the great body of the mining population are engaged, can only be *commercially* considered as the *natural* port of the southern section of these bays, for the supply of the rich valleys of Santa Clara and San Jose: while *Benicia*, at the head of ocean navigation, *naturally* and commercially belongs to the San Pablo or northern section; holds the commercial key at the only good harbor, near the outlets of the two great rivers of California; and occupies the centre of, and forms the natural mart for, the rich and extensive valleys of Salano, Nappa Sonoma, Conta Costa, Eldorado Yuba, Sacramento, and San Joquin; and because, therefore, nature, as well as the interests of commerce, *seem clearly to have decreed the necessity of two separate ports of entry on those waters, at Benicia and San Francisco*. In connection with, and in confirmation of, this view of the subject, it is respectfully submitted, whether the facts set forth in the several memorials from the numerous young cities in the mining regions, “that the entire commerce around them,” is, and must always, of necessity, be carried on in vessels too small for the strong winds and dangerous navigation of the bays below Benicia, where they can meet the largest ocean ships and procure their supplies, is not of itself conclusive upon the justice and necessity of making Benicia a full port of entry?

This being the true state of the case, and the two ports lying in opposite directions, on different routes, and accommodating different sections of the country—to continue longer to *compel* ships, after a long, perilous voyage, (*it may be of 2000 miles*) with their sea-worn crews—and passengers for the mines, *in every case*, to go out of their way, through a chopped sea, some 25 miles, (including ingress and egress,) and thus to subject them to the *expense, delays, and dangers* of an unsafe roadstead, (where according to General Smith and Commodore Jones, “all communication with the town is frequently cut off for days together by the cross sea,”)—for the *utterly useless purpose of first stopping and entering at San Francisco*, instead of taking the direct course to Benicia, to which port, the goods and passengers are destined—would be an act of injustice and cruelty, not to be tolerated by just and enlightened statesmen, and without a parallel in the history of American legislation.

Connected with this branch of reasons, permit us to quote, briefly, from a letter, dated “San Francisco, May 31, 1850,” from a distinguished citi-

zen of that place, in which, speaking of the vital importance of making Benicia a port of entry this session, he says, "Benicia has nearly doubled since January last. Improvements have already been commenced there by merchants, by the Pacific Steamship Company, and by the United States Government, which, when completed, in about 60 to 90 days, will cost over \$300,000; there is no town in California more flourishing or improving more rapidly. Under any circumstances, it *will* be one of the most important cities in the State. But, if made a port of entry, all the ships, whose cargoes and passengers are *destined for the mines*, will then go there *direct*. *As it is*, (and this is the important point,) *many ships have cleared for that port from Boston, Maine, and New York, but being compelled to anchor here, (San Francisco,) in order to enter at the custom-house, their crews immediately desert for the mines*, and owing to the difficulty of getting new crews, their captains are *persuaded*, and in some cases, *compelled*, to sell and discharge their cargoes here, and thus submit, from dire necessity, to the ruinous losses and exactions, inseparable from the enormous expense and delay of landing here." All of which can be avoided by permitting them to go directly to Benicia, as a port of entry, which is only about two and a half hours' sail from the ocean.

One other vital consideration under this head is, that, in addition to the above mentioned grievance, most of the cargoes destined to the mines, will, to avoid those losses and delays, in *any event*, be consigned to Benicia, where the correspondents and agents of the owners will reside; yet still, while San Francisco remains the *only* port of entry, all duties must by law be paid, and all bonds must be given, by the captains at that point, among *strangers* to the shippers, at a distance from their agents and consignees, residing at the port of Benicia, (for which the ships had cleared,) upon whose *advances* upon the cargoes they depended for the payment of the duties, or upon whose responsibility the securities are to be given, to the incalculable inconvenience, if not the *absolute oppression* of *all* engaged in the prosecution of this commerce.

These facts and considerations alone, when the vast number of ships hereafter destined to throng those waters are considered, ought to be regarded as a sufficient reason why a mere port of delivery at Benicia would do little or *nothing* towards relieving the *embarrassments under which this immense commerce now labors*, on account of the *existing monopoly* at San Francisco.

If the above reasons, which merely regard the interests of individuals and of our national commerce, should be deemed insufficient, considerations connected with finance and the safety of the revenue, it is to be hoped, will be conclusive upon the subject.

Among the general reasons set forth why a port of entry ought to be established at *Benicia*, were the following:

"Because it occupies the key, whether by *land* or *water*, to the entire commerce of those extensive regions, [referring to the valleys above named,] and holds the *only position*, in a narrow strait, on the passage to the interior, from which the active trade of those waters can be observed and guarded, and by which *smuggling* to the numerous points on the upper bay and river can be effectually detected and prevented."

And again: "Because, in the opinion of Com. Jones, and other officers on that station, it will prevent constant frauds upon the revenue, and save

immense loss to the Government, resulting from the existing necessity of transhipping goods at San Francisco without landing them."

These positions, so *germain* to this branch of the subject, will be further confirmed by quoting the exact language of Com. Jones, bearing on the subject, in his dispatch to the Government. He says: "The custom-house records at San Francisco, between April 12th, 1849, and January 29th, 1850, show that 805 vessels, exclusive of steamers and men of war, (bringing 39,888 passengers,) were entered at San Francisco," making about 20 large ships per week;\* "that, owing to the cost, delay, and danger of landing cargoes, the enormous price of storage, danger from fire, &c., two-thirds of the goods now in the country are still afloat in the harbor. To this already over-crowded state of the port add all the ships hereafter to arrive," constantly increasing, in almost arithmetical progression, from Russia, China, Japan, and all parts of the world, and the want of room, "inconveniences, and expenses attending the entry of goods, provisions, &c., at San Francisco, will be still further aggravated." "Moreover, it is well known to all persons acquainted with the state of commercial operations at the port of San Francisco, that, owing to the crowded state of the port, and to the system of *necessarily transhipping cargoes without landing them*, the revenue of the United States is defrauded probably at least one half; at any rate, to an amount greatly beyond the necessary expense of all the custom-houses, the erection of which I have suggested, to wit: *Benicia, Sacramento, Stockton, Monterey, and San Diego.*"

All this can be avoided by permitting ships to go directly from the sea to Benicia, with cargoes destined for the upper market.

This opinion, deliberately and officially expressed, of one of our most distinguished naval officers, superadded to that of others in the service, and confirmed by the plain common sense and judgment of all who will take the trouble to make themselves acquainted with the facts, ought, one would think, to be sufficient, of *itself*, without the aid of others, to silence the doubts of any gentleman who may have supposed that a mere port of delivery at Benicia would prevent these losses, or remedy the evils complained of.

There is one other consideration, resulting from the fact that the great mass of goods, provisions, &c., must pass the narrow straits at Benicia to the consuming regions, that may be considered as having a decisive bearing on the question; and that is, that in the vast number of ships and crews, from all nations, tongues, and people, civilized and semi-civilized, hereafter to be attracted to those waters in pursuit of GOLD, it is not unreasonable to suppose that powerful combinations may be formed, or ingenious contrivances devised, to elude the laws and defraud the revenue, by systematic attempts, *in various ways*, at smuggling and *illicit trade*.

It is known, as above stated, that the great consuming region is above the straits of Karquinez, and that most of the cargoes, whether of provisions or of goods, must find their way through those straits, and that, too, in the immediate eye of Benicia, and of our naval and military forces stationed there.

"Hic illius arma; hic currus fuit."

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\* **NOTE.**—During the first week of July just past, 36 ships arrived and entered at that port.

Is it not, then, a matter of prime importance, if not of clear necessity, in view of these contingencies, that a port of entry exist, with full and ample powers, at BENICIA, where our ships of war for the Pacific are stationed; and where our naval and military forces are permanently established, as a more efficient means of spying out, detecting, and, if necessary, aiding in the execution of the laws, and suppressing such combinations as may be too powerful for the arm of the civil authority?